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EXAMINER

SMITH, NICHOLAS A

ART UNIT

PAPER NUMBER

1795

DATE MAILED: 06/18/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,350	07/21/2003	Sascha Kreiskott	S-99,952	9406

TITLE OF INVENTION: HIGH CURRENT DENSITY ELECTROPOLISHING IN THE PREPARATION OF HIGHLY SMOOTH SUBSTRATE TAPES FOR COATED CONDUCTORS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$300	\$0	\$1020	09/18/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Notice of Allowability	Application No.	Applicant(s)	
	10/624,350	KREISKOTT ET AL.	
	Examiner	Art Unit	
	NICHOLAS A. SMITH	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to appeal brief filed 4 April 2008.
2. ☒ The allowed claim(s) is/are 1,4,5 and 9-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pp. 4-6 of Appeal Brief, filed 4 April 2008, with respect to claims 1, 4-5 and 9-13 have been fully considered and are persuasive. The rejection under 35 USC 103 based on Arendt (US 2003/0036483) in view of Rosswag (US 4,372,831) in further view of Faust (US 2,366,713) of claims 1, 4-5 and 9-13 has been withdrawn.
2. Applicant's arguments, see pp. 6-8 of Appeal Brief, filed 4 April 2008, with respect to claims 1, 4-5 and 9-13 have been fully considered and are persuasive. The rejection under 35 USC 103 based on Glowacki (Texture development in long lengths of NiFe tapes for superconducting coated conductor) in view of Rosswag in further of Faust of claims 1, 4-5 and 9-13 has been withdrawn.

Allowable Subject Matter

3. Claims 1, 4-5 and 9-13 are allowed.
4. The following is an examiner's statement of reasons for allowance: Prior art does not teach, suggest or discloses a process of electropolishing comprising a step of passing an uncoated polycrystalline nickel alloy having an initial roughness of at least 10 nm in an electropolishing bath and is electropolished to a roughness of less than 1 nm. Arendt et al. or Glowacki teaches many of the features of the claimed invention including passing an uncoated polycrystalline nickel alloy having an initial roughness of at least 10 nm in an electropolishing bath, but do not teach a step of electropolishing to a roughness of 1 nm or less (Arendt et al. does teach depositing an inert oxide layer,

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and then chemically mechanically polishing to 1 nm, paragraph [0016]). Faust indicates that higher current values (such as values that overlap the claimed range, 0.11 A to 0.54 A per sq. cm.) can be used in order to obtain the best results in a reasonable time, i.e., increase current to decrease time of electropolishing. Faust also makes the general statement that rougher surfaces take longer times to polish than relatively smooth surfaces. (Faust, p. 2, col. 2, lines 20-36). Faust also mentions that desired results depend on nickel grain size and other characteristics. Faust teaches that higher current values and longer electropolishing times effect smoother surfaces (i.e., the desired result). Faust defines his desired result as "a highly lustrous, mirror-like surface." There is no teaching that "a highly lustrous, mirror-like surface" would be equivalent to a surface roughness of 1nm or less. So, in summary, while Faust teaches increasing current and electropolishing time in order to get a smoother surface, Faust does not provide motivation to increase current applied or time applied to effect a surface roughness of 1nm or less. Examiner has also found a teaching that shows that one of ordinary skill in the art would expect that electropolishing of metal surfaces results in only approximately a 50% reduction in surface roughness (Harrison Electropolishing, <http://www.harrisonep.com/services/electropolishing/default.html?kc=1m6TM&wcw=google&ex=uxyup6-eeep549-qreaj1>), but not the amount of surface roughness reduced as in the instantly claimed invention.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS A. SMITH whose telephone number is (571)272-8760. The examiner can normally be reached on 8:30 AM to 5:00 PM, Monday through Friday.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Susy Tsang-Foster can be reached on (571)-272-1293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Harry D Wilkins, III/
Primary Examiner, Art Unit 1795

NAS

Notice of References Cited	Application/Control No. 10/624,350	Applicant(s)/Patent Under Reexamination KREISKOTT ET AL.	
	Examiner NICHOLAS A. SMITH	Art Unit 1795	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-			
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	Harrison Electropolishing, http://www.harrisonep.com/services/electropolishing/default.html?kc=lm6TM&wcw=google&ex=uxyup6-eeep549-qreaj1
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

[Home](#) > [Services](#) > Electropolishing

Electropolish Services

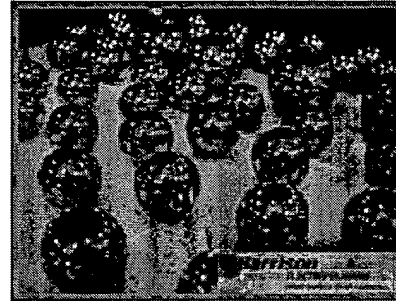
[The Basics of the Electropolishing Process](#)

[Benefits of Electropolishing](#)

[Harrison Electropolishing Capabilities](#)

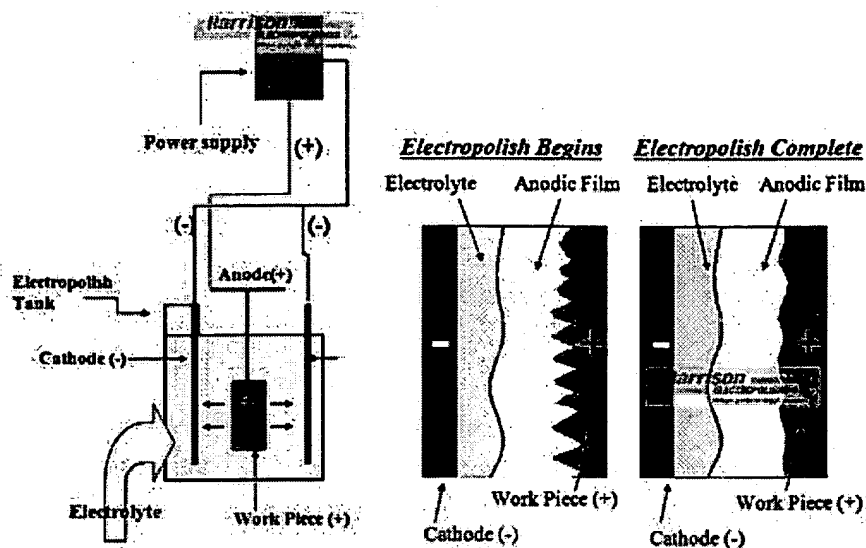
The Basics of the Electropolish Process

Electropolishing is an electrochemical process by which surface material is removed by anodic dissolution. Sometimes referred to as "reverse plating", electropolishing actually removes surface material, beginning with the high points within the microscopic surface texture. By removing these points, the electropolishing process will improve the surface finish, leaving a smoother and more reflective surface.



Electropolishing is accomplished by creating an electrochemical cell in which the material to be polished is the anode. A cathode is formed to mirror the geometry of the work-surface and the two are submerged in a heated electrolyte bath. When a DC current is applied, the electrical charge forces metal ions to be dissolved from the work-surface.

A cathode will have been assembled to mirror the geometry of the work-surface. When a DC current is applied, the electrical charge forces metal ions to be dissolved from the work-surface. The key to the electropolishing process is the difference in current density across the surface. Within the microscopic surface profile, the current density is greater at the high points and lesser at the low points. The rate of the electropolishing reaction is directly proportional to the current density. The increased current density at the raised points forces the metal to dissolve faster at these points and thus tends to level the surface material. After the electropolishing treatment, the work-piece is passed through a series of steps to neutralize, rinse, clean and dry the surfaces.



Electropolishing delivers a smoother, more reflective surface that reduces product adhesion and improves surface cleanability. Perhaps more importantly, electropolishing preferentially dissolves free iron, inclusions, and embedded particles from the surface of the work-piece. This process improves the near surface chemistry of the material, and promotes the formation of an improved corrosion resistant surface layer. Please see the full description of each of electropolishing's [benefits](#).

Benefits of Electropolishing

i. Improved Corrosion Resistance:

All forms of corrosion begin on or near the surface. Unfortunately all fabricating and handling practices invariably degrade surface conditions and surface properties. Surface contaminants, including grease, dirt, iron, and other metallic particles are inherent to the metal machining, welding and fabrication process. Mechanical cutting, machining, handling and polishing will leave iron and abrasive particles embedded within a material surface. These surface contaminants disrupt the formation of stainless steels' (and other corrosion resistant materials) naturally corrosion resistant oxide layer and are the origin of future corrosion. Electropolishing removes surface material and surface contaminants. Electropolishing dissolves free iron, inclusions, and embedded particles from the surface of the material steel.



Electropolishing improves the near surface chemistry of stainless steel. Not only does it remove embedded particles and inclusions, it also improves the atomic ratios of the materials alloying elements. Figure 1 is an Auger Electron Spectroscopy (AES) analysis of electropolished stainless steel. It shows the effect of electropolishing to the near surface atomic composition of stainless steel. Electropolishing preferentially

dissolves Iron (Fe) from the material matrix and leaves the surface with a higher relative concentration of Chromium (Cr). Upon exposure to oxygen, this improved surface will form a thicker and more uniform oxide layer with enhanced corrosion resistance properties. The improved oxide layer resulting from electropolishing will have a Chromium to Iron ratio greater than 1.5 and a Chromium oxide to Iron oxide ratio greater than 2.0. The oxide layer will be thicker than 30 Angstroms.

Electropolished stainless steels are better suited to resist the onset of pitting corrosion, crevice corrosion, localized galvanic corrosion, stress corrosion cracking and microbiologically influenced corrosion.

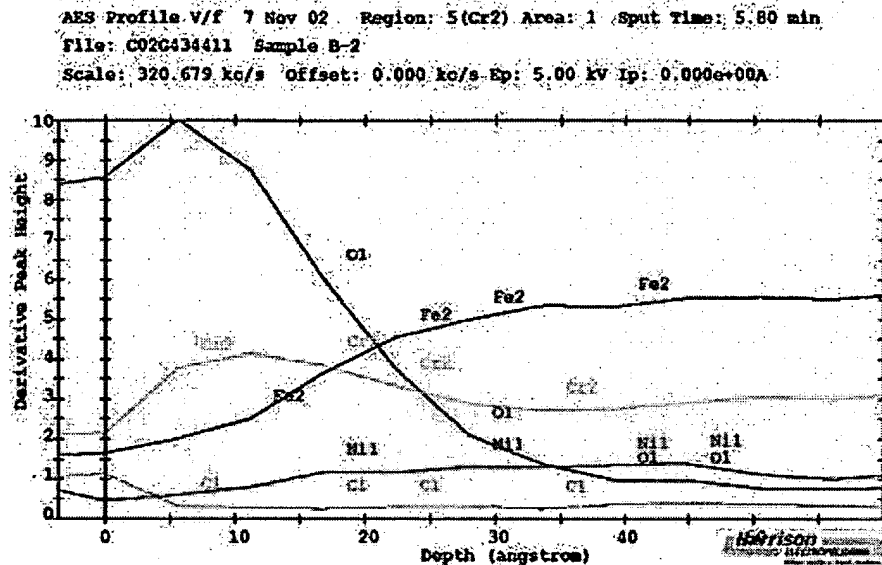


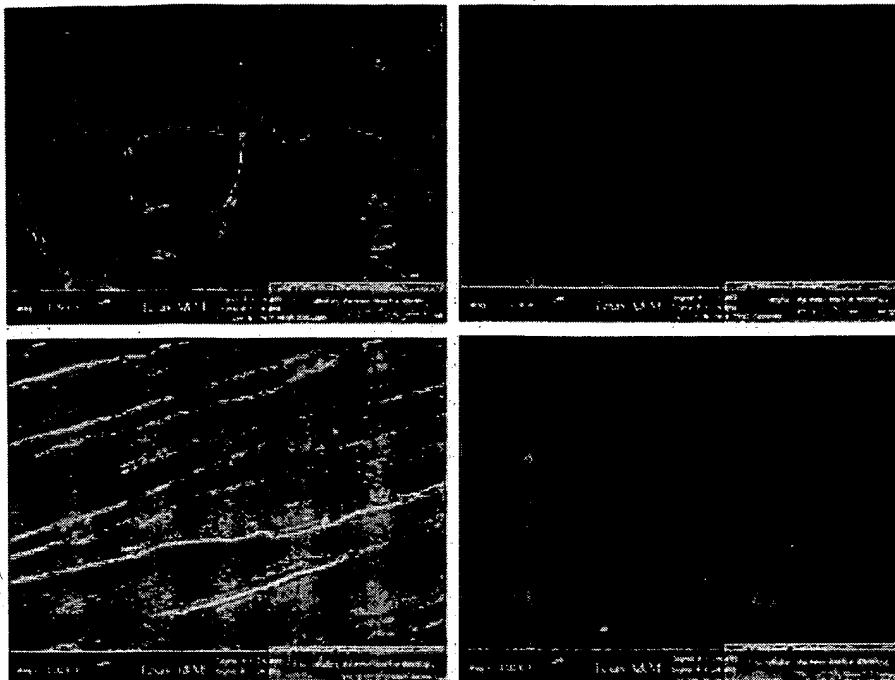
Figure 1: Spectroscopic analysis of an electropolish 316L Stainless Steel

ii. Improved Surface Finish:

Improved microfinishes can do more than improve the appearance of a part. Superior microfinishes can improve seals, lower friction, reduce real surface area, allow for easier sanitation, and improve heat and light reflection.

The roughness of a surface can be measured and quantified by a profilometer. A profilometer is an instrument that measures roughness by moving a diamond tipped stylus across a surface. A profilometer will produce a reading of the surface roughness in either micro-inches (μin) or micrometers (μm). The electropolishing process may improve a surface finish reading by up to 50%. Because electropolishing is not a surface coating, there is no risk of the surface distorting or peeling over time.





iii. Reduced Product Adhesion & Ease of Cleaning:

The improved microfinish produced by electropolishing reduces product adhesion and contamination buildup. Reduced adhesion can limit product build up and significantly lengthen duty cycles. When cleaning is necessary, cleaning operations can be completed in less time and with less effort.

Electropolishing facilitates sterilization and maintenance of hygienically clean surfaces. Research by the USDA has indicated that electropolishing reduces the buildup of bacterial biofilms.



Electropolishing reduces the appearance of rouging on the inside surfaces of distillation columns, storage vessels, and distribution systems for hot purified water and clean steam.

iv. Deburring:

Electropolishing is naturally suited for deburring. During the electropolishing process, the current density is greater at high points and lesser at the low points within the surfaces profile. The rate of the electrochemical reaction is directly proportionate to the current density. The increased current density at the raised points forces the material to dissolve faster at these points and thus tends to level the surface material. Electropolishing will simultaneously deburr and polish the surface.

Grinding, vibration and tumbling techniques are often not suited for highly detailed or fragile parts. An adequately controlled electropolishing process can remove burrs from such components. Because electropolishing is a non-mechanical process, there is no risk of distortion and the material hardness has no bearing on the processing time or cost.

Burr removal by electropolishing is limited to burr sizes of 0.002" or less. Larger burrs require a longer process time to achieve the adequate material removal. These material removal levels may affect critical dimensions of the component. Large burr removal can be accomplished by first mechanically polishing the component then electropolishing.

v. Appearance:

The most striking benefit of electropolishing is the resulting lustrous surface. Electropolishing is a non-mechanical process. No tools come in contact with the piece so there is no risk of creating directional polishing lines. The material is treated electrochemically, leaving a microscopically smooth surface that is highly lustrous.

Harrison Electropolishing Capabilities

Harrison Electropolishing, located in Houston, Texas, operates within a 16,000 square foot facility constructed in 2001. Included in this facility is a 360 square foot cleanroom, 2,500 square feet of office space and over 12,000 square feet of operational floor space.



Harrison Electropolishing has four electropolishing lines operating on a daily basis. Components that can fit within our operating tanks can be processed and returned on a standard production basis (typically 3 to 6 working days). While most process equipment may fit within these operating tanks, Harrison Electropolishing has developed proprietary techniques in order to electropolish larger components. These proprietary techniques **allow us to process equipment of any size.**

Our material handling is facilitated by five crane assemblies, including two 5-ton overhead cranes.

Metal Finishing Services

[Electropolishing](#)
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[Harrison C-75](#)
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Electropolish Services from Harrison Electropolishing

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the **ISSUE FEE** and **PUBLICATION FEE** (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

35068 7590 06/18/2008

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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/624,350 07/21/2003 Sascha Kreiskott S-99,952 9406

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APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$720	\$300	\$0	\$1020	09/18/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
SMITH, NICHOLAS A	1795	205-640000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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LOS ALAMOS NATIONAL LABORATORY
PPO. BOX 1663, LC/IP, MS A187
LOS ALAMOS, NM 87545

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 42 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 42 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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